

January
18,
2002



CAMERON-COLE

United
States
Environmental Protection Agency
Enforcement and Compliance Docket and Information Center
(Mail Code 2201A)
Attn: Docket Number EC-2000-007
1200 Pennsylvania Avenue NW
Washington, DC 20460

RE: Docket Number EC-2000-007

Dear Sir or Madam:

This letter summarizes comments to the proposed ruling for 40 CFR Parts 3, 51, et al. for the Establishment of Electronic Reporting to the United States Environmental Protection Agency (EPA). The Cameron-Cole, LLC firm provides environmental data services to a variety of EPA-regulated entities. Cameron-Cole recognizes that a centralized electronic repository for the collection of pertinent environmental data is necessary for EPA and other regulators desiring to collect and store environmental data. However, Cameron-Cole is concerned that the implementation of an EPA Central Data Exchange may impact some EPA-regulated entities adversely. Cameron-Cole's response to specific comment requests is noted in detail below with items from the text of the proposed ruling indicated in *italics*. Cameron-Cole comments are provided in normal text.

- 1. EPA is seeking comment and information on how well today's proposed regulatory provisions and the Central Data Exchange infrastructure will serve to fulfill these three goals (reduce the cost and burden of data transfer, improve the data—and the various business processes associated with its use, and maintain/improve individual responsibility and accountability for electronic reports). (Section II-E)*

Cameron-Cole believes that the implementation of an EPA Central Data Exchange (CDX) may increase reporting costs for EPA-regulated clients. Many clients are all ready reporting to a variety of agencies, including EPA, and the advent of CDX for reporting electronic data to EPA may only add to existing reporting requirements. It also potentially compounds the costs of reporting unless submittal of electronic reports to the EPA CDX replaces State, Tribal, and local government electronic reporting requirements and vice versa.

The proposed ruling allows for EPA approval of electronic reporting systems for State, Tribal, and local governments; but the criteria set forth for approval of these systems does not regulate the system structure itself. The database systems vary between the States and electronic reporting submittals can vary significantly based on the underlying data structure. An electronic submittal for one regulatory entity may not satisfy the needs of a second regulatory entity thereby requiring the generation of multiple electronic submittals in varying formats. Some States also require the use of specific software packages to access and report to their electronic document receiving system.

Cameron-Cole recognizes that implementation of the CDX will improve the speed with which environmental data can be reported to the public via electronic media. We appreciate that electronic reporting greatly reduces the cost of processing environmental data and reporting for the regulatory community. However, the economic and labor burden will simply be transferred to the regulated entity. Such potential costs include the cost of designing multiple electronic data outputs (for larger regulated entities) to satisfy the reporting demands of the various regulatory agencies; and for smaller regulated entities, labor costs associated with manual entry of data into pre-designed online "smart forms." While this approach appears to address electronic reporting issues for smaller regulated entities without the ability to comply with data transfer directly to the CDX, manual data entry increases the likelihood of error. We commonly store and report data for over 200 parameters for a single sample location per sample event. Manual entry of this data into online forms would make electronic reporting extremely cumbersome. Additionally, data quality is always an issue whenever manual entry of data occurs regardless of whom performs the task.

Cameron-Cole acknowledges that the EPA's proposed methods of establishing individual responsibility and accountability are sound and reflect the best practicable technologies of today.

2. *EPA seeks comments on whether the new Part 3 should include specific cross-references to such announcements and instructions to the extent that these are codified elsewhere in Title 40. (Section III-D)*

Cameron-Cole suggests that any cross-referencing necessary to clarify electronic reporting requirements be codified.

3. *Our approach will then be to provide public notice and seek comment on major changes at least one year prior to implementation.... EPA seeks comments on this approach.... We also seek comment on the more general question ... to codify these public notice provisions at all, or whether they may place at risk our ability to be sufficiently responsive to the changing needs of our user community (Section IV-A)*

Cameron-Cole feels that a one year advance notice prior to a major change affecting hardware, software, or data output format may slow the ability for EPA to remain technologically in step with industry. We suggest that shortening this length of time may be more appropriate given the timeframe of technological advances today. A six-month advance notice for an annual submittal should be more than adequate. As to the codification of these public notice provisions, we believe that codifying the initial notice provision stating that EPA can enact major changes up to six months prior and minor changes 60 days prior to an electronic submittal is desirable.

4. *EPA seeks comment on whether these criteria are appropriate and whether—taken together with the general criteria—they are sufficient to ensure that signatures associated with records fulfill their purpose. EPA also seeks comment on whether these criteria are appropriate for the maintenance of electronic records containing digital signatures. (Section VI-B)*

Cameron-Cole believes that the criterion set forth by EPA are sufficient to establish that an electronically-signed document carries the same legal weight as a paper document signed with wet ink. If any question remains, the certification statements associated with the generation of the signature address any shortcomings.

5. *EPA seeks comments on whether this criterion is sufficient to ensure the integrity and authenticity of the electronic record is maintained throughout its required record retention period. (Section IV-B)*

Cameron-Cole is concerned about the potential for data corruption over the required retention period of 30 years for some records. To date, there is no electronic medium guaranteed to hold any electronic data for 30 years. Additionally, the files used to create and encrypt the documents and electronic signatures would also need to be stored for 30 years. This is a potential issue as the question of who is responsible for keeping these files comes into question. Is the EPA responsible for maintaining a document once submitted or is the regulated entity required to be able to re-produce the submittal in its entirety? Additionally, the EPA stipulation that migration of electronic records can occur from one media to another only through employing error-checking software to ensure that the file was completely and faithfully transcribed may be superfluous. Cameron-Cole feels that technology used to encrypt the electronic document and provide an electronic signature can also be used to check a file and guarantee its transcription was complete and accurate. As pointed out in the EPA proposal, if the document cannot be decrypted using PKI technology, it has been potentially corrupted or is not in its original form. Thus, the transcription was not valid and the migration could not take place.

6. *EPA is also seeking comment on the general feasibility of converting existing paper document--including litigation-sensitive records—to electronic documents, as well as comments on the strengths and weakness of existing technologies available for this purpose. (Section IV-B)*

Cameron-Cole believes that while continuing advances in scanning software are being made, finding software capable of recognizing the vast majority of chemical compounds as they are noted on laboratory reports continues to be a challenge. Even with the ability to successfully scan paper documents to electronic formats, extensive review by informed personnel capable of recognizing minute changes in text would still be required. Cameron-Cole believes that moving forward, electronic data storage certainly makes the most sense but we do not recommend conversion of existing paper documents to electronic format.

7. *Moreover, EPA solicits comment on whether another approach should be taken to State and tribal program modification or revision for electronic reporting or record-keeping. (Section IV-C)*

Cameron-Cole is satisfied with the requirement that State, Tribal, or local governments desiring to institute electronic reporting comply with specific EPA program requirements and that any electronic document receiving system employed by a State, Tribal or local government would also meet the same requirements mandated for EPA's CDX.

8. *EPA invites comments on the exclusion of these criteria in cases where systems will not receive signed documents or documents used in litigation or enforcement and criminal proceedings. EPA invites comment on whether it would be worth developing the alternative set of criteria for systems that exclude electronic signatures. (Section IV-D)*

Cameron-Cole feels that the criteria set forth for submitting electronic documents be the same regardless of whether an electronic signature is required or if the data might be used in litigation. Data reported electronically should be tracked to the file origin and its creator. Untracked electronic submittals could lead to false reporting by regulated entities or have the potential to be produced by unauthorized sources.

9. *We seek comment on whether—taken together—they are sufficient to ensure that the system can maintain the integrity and authenticity of the electronic documents it receives and maintains. (Section IV-D-2)*

The General System-Security Requirements set forth in proposed section 3.2000(a) seem adequate to ensure data integrity and authenticity on the surface; however, the details of such a security system have not been stipulated and may change Cameron-Cole's perspective on this particular question.

10. *We seek comment on whether these conditions are appropriate, and whether—taken together—they suffice to ensure that electronic signatures affixed to electronic documents will have the same or better evidentiary value as handwritten signatures for purposes of prosecuting an environmental crime or civil violation. (Section IV-D-2)*

The methods described in proposed section 3.2000(b) facilitate the use of today's best practicable technologies for electronic signature submittals and as such, should carry the same legal weight and connotation as a wet ink signature on a paper document.

11. *EPA seeks comment on the various alternatives for renewal frequency—including one year and longer than three years—considering both marketplace standards and the goals of security and validity of data. EPA also seeks comment on whether any of the candidate renewal cycles would raise any administrative issues for State, tribal, or local governments, and whether the Administrator's ability to revisit this determination—with the implied potential for a change in system requirements—poses any problems for systems planning or management. (Section IV-D-3)*

Cameron-Cole suggests that renewal occur annually. This ensures that regulated entities maintain up-to-date files with EPA and also gives EPA the opportunity to ensure that signature holders remain in good standing and have not abused their signatory rights. Any administrative issues would be outweighed by eliminating the potential for false reporting by regulated entities.

- 121. EPA seeks comment on all of these proposed registration agreement and renewal statement provisions, including the proposed provision for administrative determination of the frequency and terms of the renewal agreements. (Section IV-D-3)*

Cameron-Cole believes that the proposed signature registration agreement and renewal statement provision requirements are valid and protect both EPA and the regulated entity. The regulated entity is required to take appropriate precautions to protect their electronic signature and Cameron-Cole feels that this agreement is necessary to guarantee that the intent of the signatory is preserved. The registration agreement needs to be in place for larger reporting entities because these entities may not utilize on-screen certification if their data can be transferred directly to CDX.

- 13. EPA also seeks comment on a possible additional certification statement required to be signed when a signature holder surrenders the signature for whatever reason.... (Section IV-D-3)*

Due to the potential legal ramifications associated with submitting electronic reports to EPA, Cameron-Cole feels that a separate certification for signature surrender is necessary to enable EPA and others to effectively maintain electronic records. Any surrender certification should include a statement attesting to the validity of any documents signed by the signatory prior to surrender.

- 14. Finally, EPA also solicits comment on whether some other mechanism is needed, in lieu of the registration agreement, to ensure that holders of electronic signatures properly use and protect their signatures. (Section IV-D-3)*

Cameron-Cole feels that implementation of the proposed registration agreement will satisfy EPA's electronic reporting needs and any person or regulated entity completing a signature registration agreement understands and acknowledges the importance of properly protecting and using their electronic signature.

15. *EPA seeks comment on whether there are other circumstances that should result in automatic invalidation of an electronic signature. (Section IV-D-3)*

Cameron-Cole agrees that a mechanism that automatically invalidates an electronic signature for the circumstances proposed be integrated into the CDX.

16. *EPA seeks comment on this more general signature requirement. (Section IV-D-3)*

Cameron-Cole believes that all electronic data submittals should require registration of reporting entities. Registration allows third parties reporting on behalf of regulated entities to submit authorized reports. Signatories can complete the electronic submittal to EPA with the required electronic signature authority. Registration also minimizes the potential for unauthorized sources to report data to EPA.

17. *EPA seeks comments on whether this language should be codified, and more generally, on whether the three conditions to be satisfied prior to signing are necessary and sufficient to establish that the signature was affixed with the requisite intent. (Section IV-D-4)*

Cameron-Cole suggests that all certification statements be codified to ensure compliance and enforcement.

18. *EPA also seeks comment on three alternative versions of this third proposed condition that would replace the “together with a prominently displayed warning. * * * .” language of (Sec. 3.2000(e)(1)(ii)) with a separate provision to be inserted....(Section IV-D-4)*

Cameron-Cole believes the most robust version of the proposed condition should be used to certify the intent of the signatory. The robust version clearly denotes the EPA’s expectations of the signatory and also contains certification statements equating the electronic signature with that of a wet-ink-on-paper signature.

19. *EPA seeks comment on whether the number and type of responses from the electronic document receiving system adequately address the issue of spurious or compromised submissions. Specifically we seek comment on the automatic acknowledgements. (Section IV-D-4)*

The number and type of responses anticipated from the CDX may not be adequate to guarantee valid submissions. Online review of large data sets is difficult and may need to take place over several hours or days. Review of online data may not indicate any errors potentially generated by a computer's system, yet a system error can corrupt an electronic data submittal. The reporting entity would not be able to produce a printable copy of record until after the signature process is complete. This copy of record would be sent to an address (physical or electronic) that is independent of the CDX. In the case of the US Postal Service, a copy of record would not be received at a physical location for review until after the 24-hour deadline stipulated to repudiate a submittal. A submittal should not be considered valid until the copy of record is reviewed by the authorized signatory and approved.

20. *EPA seeks comment on whether this transaction record specification is sufficiently robust to provide for "chain of custody". (Section IV-D-5)*

The proposed transaction record may not be sufficiently robust enough to provide for a "chain of custody." In the case of a third party submittal on behalf of a reporting entity, the transaction record would need to be far more detailed and would need to allow for an interim step between submittal and signature. Additionally, any data submitted by a third party might not reach the appropriate party for review and comment unless the CDX allows for the copy of record to be sent to multiple locations.

21. *EPA seeks comments on these archiving criteria, and especially on whether there are any issues raised by the need to maintain the copy of record—which includes electronic signatures—over long periods of time. (Section IV-D-6)*

Cameron-Cole is greatly concerned about record retention and the archiving process necessary to maintain critical documents over extended periods of time. As noted earlier, to date there is no storage medium which guarantees pristine record retention for 30 years or more. We also question whether a software package is the best means to ensure accurate transcription of an electronic file between one media and another. As the CDX system evolves, the software might need to be updated. Additionally, if a submittal's electronic signature is corrupted, does that invalidate an otherwise valid submittal?

22. *EPA seeks comments on these and related difficulties that may stand in the way of validating archived digital signatures and we welcome any advice on how these might be overcome. EPA also seeks comment on such alternative approaches. (Section IV-D-6)*

Cameron-Cole acknowledges the inherent issues with archiving digital signatures, especially when the main storage of such data tends to be magnetic. Our suggestion of annual renewal of signature registration might assist EPA with validating digital signatures. Any renewal could be submitted using wet-ink-on-paper and would carry verbiage certifying that all records submitted with the previous electronic signature were valid at the time of signing.

23. *EPA requests comment on whether the underlying assumptions and the methods used in the cost benefit analysis provide a realistic estimate of the costs and benefits associated with electronic reporting and record keeping. (Section IV-E)*

Cameron-Cole does not anticipate any cost benefits for any of the regulated entities we provide data services for based on the cost benefit analysis in the proposed ruling. Any smaller regulated entity will need to provide personnel and equipment to manually enter data into the online "smart forms" and larger entities would need to program specific data outputs required by the various agencies. The proposed ruling does not release any reporting entity from existing reporting requirements and if paper submittals are required, they must be submitted in addition to any electronic submittal.

Cameron-Cole does recognize that electronic reporting greatly reduces the costs of the regulatory community in regards to record keeping and processing of environmental reports and data.

24. *EPA is seeking comment from reviewers on alternative record keeping approaches and on EPA's assumption that facilities choosing to submit data via XML or EDI to EPA will not acquire new hardware or software. (Section IV-E-1)*

Cameron-Cole feels that an archiving process comprised of electronic data submittals accompanied by paper signature registrations is the best way to guarantee that electronic reporting maintains the original intent of the signatory. EPA's assumption that facilities will not need to acquire new hardware or software to report to EPA using XML or EDI is not valid. The proposed ruling cites, "To ensure a uniform signature/certification process, CDX would provide the computers from which it accepts documents with copy-protected and password-protected software that will support the digital signing of electronic documents." This software may come at no expense to the regulated entity, but it is still software.

25. *EPA seeks comment on the value of the confirming letter, and of providing for these "alternates", and on whether these would impose any unacceptable costs or burdens on regulated entities. (Section V-B-2)*

Cameron-Cole often generates reports on behalf of regulated entities. Allowing for alternates and requiring a "confirming letter" from the regulated entity noting whom is able to report on their behalf is necessary to allow us and other environmental consulting businesses to report to the CDX. We anticipate no costs or burdens associated with the proposed confirmation letter or use of "alternates" for reporting in the case of an absent authorized signatory.

26. *While EPA is not currently planning to require this option, we are seeking comment both on whether it would involve too many burdens for users and on whether the option is necessary to protect the private key from compromise. (Section V-B-3)*

Cameron-Cole is concerned that "localized" CDX client software will not provide EPA with the increased security for signatures EPA desires. If the private key is created in a way that prohibits its export at the onset, all electronic reporting for that facility will need to come from that CPU. If the hard drive in the CPU crashes, there is no recourse for a reporting entity other than submitting a request for a new private key. This may delay reporting and may force a reporting entity into a state of non-compliance.

27. *EPA seeks comment on the appropriateness of these goals and whether more or less should be designed into CDX to ensure that it meets these goals. (Section V-B-5)*

The goals set forth for CDX are appropriate for the intended use of the system; however, Cameron-Cole believes an interim step should be added that allows for signatory approval of the copy of record prior to considering an electronic submittal as complete.

Cameron-Cole, LLC appreciates the opportunity to provide comment on EPA's proposed ruling regarding electronic data and report submittals. If you have any questions or concerns regarding the views contained in this letter, please do not hesitate to contact us. We can be reached at (303) 938-5500 or electronically at pruppel@cameron-cole.com or tcarmeli@cameron-cole.com.

Sincerely,

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